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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/681,674	05/18/2001	Yoshifumi Natsuyama	JP920000096US1	3666

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EXAMINER

RUDE, TIMOTHY L

ART UNIT	PAPER NUMBER
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2871

DATE MAILED: 12/18/2002

7

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**Application No. 16

09/681,674

Applicant(s)

NATSUYAMA, YOSHIFUMI

Examiner

Timothy L Rude

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 December 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 1-3 and 9-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 4-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Election/Restrictions*

1. Claims 1-3 and 9-15 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected group, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 6.

### *Claim Objections*

2. Claim 7 is objected to because of the following informalities: The recitation "said *conductive* anchor pins" lacks antecedent basis. Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

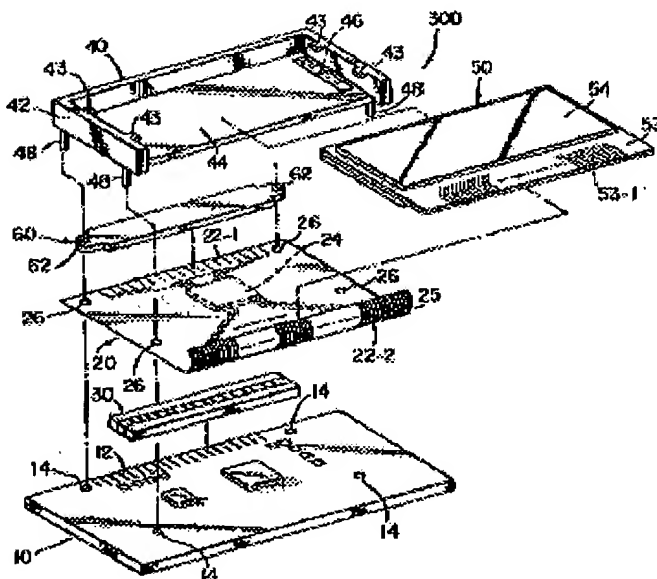
(e) the invention was described in–

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or  
(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

3. Claims 4-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Muramatsu USPAT 6,191,838 B1.

As to claim 4, Muramatsu discloses in his third embodiment, Figures 11 and 12, (col. 10 line 66 through col. 13, line 6) a liquid crystal display device, 50, comprising: a pair of glass substrates facing each other, each having electrodes for applying voltage to a liquid crystal material on a facing surface (typical); a circuit board, 10, for supplying said voltage; and a liquid crystal driver tape carrier package, 20, (col. 11, lines 7-9 and col. 7, lines 1-3) for connecting said electrodes of said glass substrates to said circuit board and mounting a liquid crystal driver chip (col. 11, lines 7-9 and col. 7, lines 4-13), wherein said liquid crystal driver tape carrier package and said circuit board anchor holes, 26 and 14, and anchor pins, 48, are inserted into said anchor holes, whereby said liquid crystal tape carrier package is fixed to said circuit board (col. 11, lines 45-48).

Figure 11



As to claim 5, Muramatsu discloses the liquid crystal display device according to claim 4 further comprising a light guide, 44 (Applicant's frame), for allowing said anchor pins to stand on a surface holding said pair of glass substrates, wherein said liquid crystal driver tape carrier package and said circuit board are fixed to said frame.

As to claim 6, Muramatsu discloses the liquid crystal display device according to claim 4, wherein a pair of said anchor holes, 26, is located with said liquid crystal driver chip, 24, between (diagonally per Figure 11).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muramatsu, as applied to claims 4 and 5 above, in view of Yamagishi et al (Yamagishi) USPAT 5,771,158 and Glaser et al (Glaser) USPAT 4,550,039.

As to claims 7 and 8, Muramatsu discloses the liquid crystal display device according to claims 4 and 5.

Muramatsu does not explicitly disclose a grounding conductor formed on said frame, and said conductive anchor pins are conductively connected to said grounding conductor (claim 7) and wherein said liquid crystal driver tape carrier package is soldered to said circuit board via said pins.

Yamagishi teaches the use of a ground plane to reduce radiation emissions and avoid harmful interference with other electric appliances (col. 4, lines 44-65 and col. 3, lines 30-40).

Glaser teaches the use of soldering conductive pins to make electrical connections with more efficient routing of lead wires (col. 1, line 67 through col. 2, line 5).

Yamagishi is evidence that ordinary workers in the art of liquid crystals would find the reason, suggestion, or motivation to add a ground plane to reduce radiation emissions and avoid harmful interference with other electric appliances.

Glaser is evidence that ordinary workers in the art of liquid crystals would find the reason, suggestion, or motivation to use soldering of conductive pins to make electrical connections with more efficient routing of lead wires.

Therefore, it would have been obvious to one having ordinary skill in the art of liquid crystals at the time the invention was made to modify the LCD of Muramatsu with the ground plane of Yamagishi to reduce radiation emissions and avoid harmful interference with other electric appliances and the soldering of conductive pins of Glaser to make electrical connections with more efficient routing of lead wires.

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**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy L Rude whose telephone number is (703) 305-0418. The examiner can normally be reached on Monday through Thursday.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H Kim can be reached on (703) 305-3492. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4900.



Timothy L Rude  
Examiner  
Art Unit 2871

TLR  
December 9, 2002



ROBERT H KIM  
SUPERVISOR  
TELEPHONE UNIT 2871